

Work Order ID 65588

Thursday, January 20, 2011 10:21:13 AM



Page 1

~~DRAB GREEN~~

Item ID: D205-634-041

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 1/21/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 2/10/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: mf Date: 11-01-20

Tooling:

Date:

Run Start



QC: _____ Date: _____

Date:

SPC (Y/N): _____

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D2580	Rev.D DEO-D1

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG003

8/10/04

OK for BGR 11/03/04

110

0.00



CNC Bend 1

BENDING MACHINE - SKIDTUBES

Memo

0.00

CNC Delta.100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio 16

2-Cut tubes as per Dwg. D2580

3- scribe batch# in aft end of tube



11-2-23

B65588

Work Order ID 65588

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Start Date: 1/21/2011 Start Qty: 1.00

Required Date: 2/10/2011 Req'd Qty: 1.00

Reference:

Cust Item ID:



Customer:

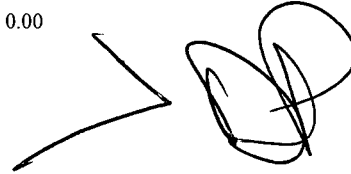
Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 		0.00							
Skidtubes	Memo	0.00							
Skidtubes	1- Deburr ends and remove bending marks								
	2- Prepare tube for swaging as per QSI 002								
130 	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									



11-2-23

1 0 BE 11/22/23

Work Order ID 65588

Thursday, January 20, 2011 10:21:13 AM

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Item ID: D205-634-041

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Revision ID:

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Start Date: 1/21/2011 Start Qty: 1.00

Required Date: 2/10/2011 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

0.00

Skidtubes

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI004
A/R□□□ Aluminum Rod

2-Grind welds on step as per Dwg D2580

3-Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002
and dwg. Hold x-bolt with DT9701 Use tube expander 1/2 x17G to start
expansion and finish with 1/2 x 18G to achieve dwg dimension.4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64",
adjust stopper not to hit web. Deburr

6-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

150

QC10- Inspect visual per QSI004- ground welds

0.00

QC

Memo

0.00

Quality Control

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Required Date: 2/10/2011 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

170

Pressure Wash per QSI005 4.3

0.00

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd
cap out of solution.

185

~~Drab Green(Ref:4.3.5.11)per QSI005 4.3 (Alum)~~

0.00

Powdercoat

Memo

Powder Coating

START TIME:
OVEN TEMPERATURE:
FINISH TIME:

11:30
320 OF
12:00

M115951

white u

= 7 m-l 11/03/03

= 7 m-l 11/03/03

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 65588

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Revision ID:

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Setup Start

Stop

Start Date: 1/21/2011 Start Qty: 1.00

Required Date: 2/10/2011 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 0 11 1/23/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Item Name: Replacement Skidtube

Stop



Start Date: 1/21/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 2/10/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates
A/R ☐ ☐ ☐ Sikaflex-291 ☐ 111160510
Sikaflex expire date: 11109

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive
A/R ☐ ☐ ☐ Sikaflex-291 ☐ 111160510
Sikaflex expire date: 11109

5-Wing Walk as per Dwg D2580 and QSI 005 4.4
Batch: 11116402

1 0 24 4/03/04

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 65588

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Item ID: D205-634-041

Accept

Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 1/21/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 2/10/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

220

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD205-634-041

Location: _____

PPP Rev: _____

230

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11-03-04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

Thursday, January 20, 2011 10:21:08 AM

Page 1

Work Order ID: 65588

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube




Start Date: 1/21/2011

Required Date: 2/10/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30
KJ IPP Rev P 10.02.19
per PAR09-043 EC verified by:DD
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM IPP Rev:Q
10.12.01 as per chg003 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4202-1  Spacer		Manufactured	No			140	Each	106.0000	20	20			
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
<div> <div>LG</div> <div>106</div> <div></div> </div>													
<div> <div>64608</div> <div>106</div> <div></div> </div>													
D2580-1  205 Skidtube bent detail		Manufactured	No			110	Each	2.0000	1	1			
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
<div> <div>LG</div> <div>1</div> <div></div> </div>													
<div> <div>63051</div> <div>1</div> <div></div> </div>													
<div> <div>ST046</div> <div>1</div> <div></div> </div>													
<div> <div>59856</div> <div>1</div> <div></div> </div>													
D2576-3  Step (maching detail)		Manufactured	No			140	Each	62.0000	1	1			
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
<div> <div>LG</div> <div>62</div> <div></div> </div>													
<div> <div>46661</div> <div>14</div> <div></div> </div>													
<div> <div>52215</div> <div>48</div> <div></div> </div>													

BE 11/02/28
B 65529 20

① DP 11-2-23

BE 11/02/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Page 2

Work Order ID: 65588

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 1/21/2011

Required Date: 2/10/2011

Start Qty: 1.00

Required Qty: 1.00

D2855 drab green Manufactured No
Cap

200 Each 54.0000 1 1



41 1/03/03

Location Loc Qty Loc Code

FP6	3	
56613	1	
63634	2	
ST026	51	
50513	1	
50770	28	
51539	2	
<u>53791</u>	20	

AN3-5A Purchased No
Bolt

200 Each 1,085.000 2 2



41 1/03/03

Location Loc Qty Loc Code

ST350	1085	
<u>115016</u>	385	
115371	500	
116632	200	

AN960JD10L NAS1149D0332J Purchased No
Washer

200 Each 0.0000 2 2



1117010 41 1/03/03

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Work Order ID: 65588

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 1/21/2011

Required Date: 2/10/2011

Start Qty: 1.00

Required Qty: 1.00

ALS7-1032-130

Purchased

No

200

Each

1,628.000

50

50



Insert



u

u103107

Location

Loc Qty

Loc Code

FP

689

115079

689

ST282

939

113238

17

115502

500

115581

422

x50

AN3C4A

Purchased

No

200

Each

1,230.000

50

50



BOLT



u

u103107

Location

Loc Qty

Loc Code

ST350

1230

M116764

x50

115300

25

115936

8

116075

997

116590

200

AN960C10L

NAS1149C0332

Purchased

No

200

Each

25.0000

50

50



washer



u

u103103

Location

Loc Qty

Loc Code

ST245

25

107534

25

M116304

x50

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Page 3

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Page 4

Work Order ID: 65588

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 1/21/2011

Required Date: 2/10/2011

Start Qty: 1.00

Required Qty: 1.00

D3566-13 Manufactured No

200 Each

26.0000

1

1



Gasket



HL 11/03/03

Location

Loc Qty

Loc Code

FP012

6

61996

6

FP014

20

64070

20

X1

D3566-5 Manufactured No

200 Each

13.0000

1

1



Gasket



HL 11/03/03

Location

Loc Qty

Loc Code

FP

12

64789

12

FP015

1

63574

1

B66146

X1

D3566-1 Manufactured No

200 Each

6.0000

2

2



Gasket



HL 11/03/03

Location

Loc Qty

Loc Code

FP015

6

57715

1

63573

5

B66129

X2

D3564-11 Manufactured No

200 Each

8.0000

1

1



Wearshoe



HL 11/03/03

Location

Loc Qty

Loc Code

FP019

8

62236

8

B65159

X1

Thursday, January 20, 2011 10:21:09 AM

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Page 4

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Parent Item Name: Replacement Skidtube

Start Date: 1/21/2011

Required Date: 2/10/2011

Start Qty: 1.00

Required Qty: 1.00

D3564-13
Wearshoe

Manufactured No

200

Each

16.0000

1

1

Location

Loc Qty

Loc Code

FP17

16

B65522

59660

1

61828

3

62229

12

D3564-9
Wearshoe

Manufactured No

200

Each

17.0000

1

1

Location

Loc Qty

Loc Code

FP

1

55334

1

FP019

1

B66153

61709

1

FP19

15

62238

15

D3564-5
Wearshoe

Manufactured No

200

Each

22.0000

1

1

Location

Loc Qty

Loc Code

FG

1

34806

1

FP19

2

57525

1

B65523

58709

1

FP-19

19

63575

8

65058

11

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Shop Packet Print

Page 5

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Parent Item: D205-634-041

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Start Date: 1/21/2011

Required Date: 2/10/2011

Start Qty: 1.00

Required Qty: 1.00

D2594-3

Manufactured No

200

Each

739.0000

16

16



O-Ring, 205 Skidtube



11/03/03

Location

Loc Qty

Loc Code

FP

43

55546

19

58191

12

59358

12

fpa

696

61762

696

x16

D2594-1

Manufactured No

200

Each

235.0000

16

16



Plug, 205 Skidtube



(16) 11/03/03

Location

Loc Qty

Loc Code

FP

183

42807

112

55002

71

FP14

52

58434

15

62893

37

365980

x16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. 0 SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

RELEASED
07-06-28 #**DEO ATTACHED**

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

GENERAL NOTES:

- #65588
- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 2) ALL DIMENSIONS ARE IN INCHES
 - 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
 - 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
 - 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
 - 6) WELDING TO BE DONE PER DART QSI 004.
 - 7) FINISH:
SEE NOTES ON
PAGE 2 FOR D2580-041 AND
PAGE 3 FOR D2580-045
 - 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DEO ATTACHED

Technical drawing of a circular component with a central hole. The drawing includes the following labels and dimensions:

- #0.208**: Dimension for the central hole.
- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)**: Instruction for drilling two additional holes.
- AN3-5A BOLT (1)**: Specification for one bolt.
- AN960ND10L WASHER (1)**: Specification for one washer.
- (2 PLACES)**: Indication for two locations.
- D2855 CAP**: Label for the cap being installed.
- SEAL WITH SIKAFLEX-241/-291**: Instruction for sealing the component.
- 0.40**: Dimension for the distance from the center to the edge of the cap.

Diagram of a circular spacer assembly. The assembly consists of a central circular body with two vertical slots. A horizontal bar is positioned across the top of the slots. A small circular component is attached to the right side of the assembly. The following labels are present:

- D2579 SPACER (pointing to the central circular body)
- D2596 WEB (REF) (pointing to the horizontal bar)
- AL57-1032-130 (REF) (TYP 50 PLACES) (pointing to the small circular component)

5

AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 x 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C/BORE D2579 SPACER TO #0.437 x 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

37.50

DISTANCE TO AFT END OF D2596 WEB

3

7

1.750

1.750

Ø0.508 (TYP.) (40 PLACES)

REFER TO DETAIL A

8.750

17.375

26.000

34.188

57.313 (REF)

7 EQUAL SPACES 8.188 PITCH

38.0

91.500

190.0 (D2500-1)

FORWARD ASSEMBLY DETAIL

WELD AS PER DETAIL B

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

0.5

1.5

1.5

D

P

P

P

P

P

P

P

P

P

REFER TO DETAIL C

D3566-1

D3566-5

D3566-1

D3566-13

D3564-11

D3564-5

D3564-9

D3564-13





AN3C4A BOLT (1)

AN960C10L WASHER (1)

(50 PLACES)

DESIGN	DRAWN BY
--------	----------

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DESIGN		DRAWN BY	
CHECKED		APPROVED	
DATE			
07.02.27			

DRAWING NO.	REV. D
D2580	SHEET 2 OF 3
TITLE	SCALE
205 SKIDTUBE ASSEMBLY	1:24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

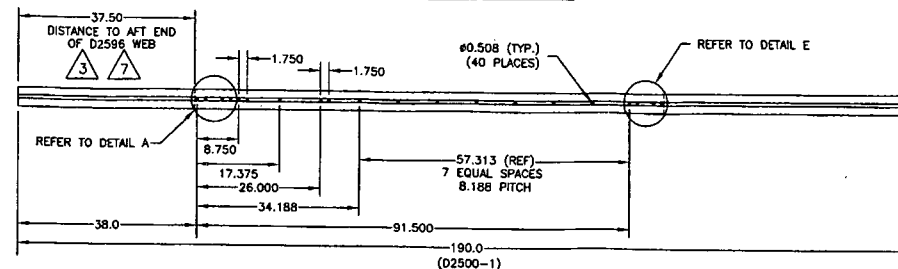
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

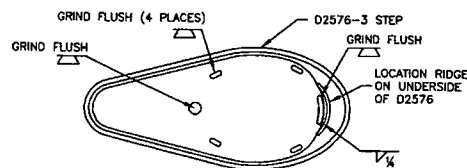
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

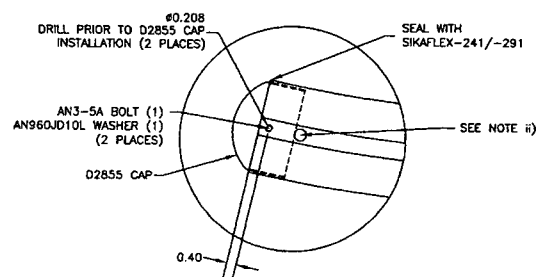
D2580-1 DRILLING DETAIL



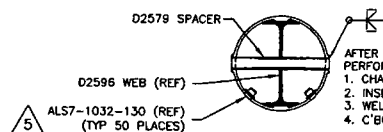
DETAIL F
SCALE 5:24



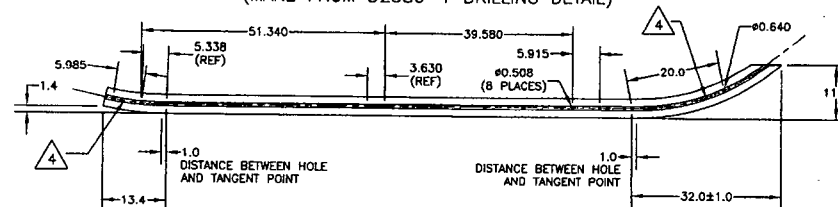
DETAIL G
SCALE 5:24



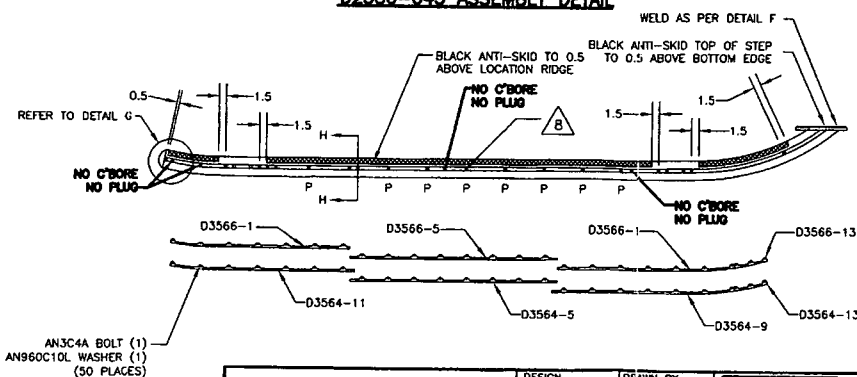
SECTION H-H
SCALE 5:24



D2580-5 BENDING AND CUTTING DETAIL
(MAKE FROM D2580-1 DRILLING DETAIL)



D2580-045 ASSEMBLY DETAIL



D2580-045 NOTES

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

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DESIGN

PH

CHECKED 

DATE _____

07.02.27

DRAWN BY

PH

APPROVED

DART

DART AEROSPACE LTD.
HAINESBURY, ONTARIO, CANADA

DRAWING NO	
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D2580

TITLE

205 SKIDTUBE ASSEMBLY

REV. 0

SHEET 3 OF 3

SCALE

1:24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D2580	TITLE 205 SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D2580-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>L</i>	MFG. APPR. <i>R</i>	APPROVED <i>MP</i>		DE APPR. <i>H</i>		
DATE 10.09.22	DATE 10.11.04	DATE 10.11.04	DATE 10/11/04		DATE 10.11.04		

PURPOSE:

CHANGE ALL WELDED CROSSBOLT SPACERS TO SWAGED SPACERS

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

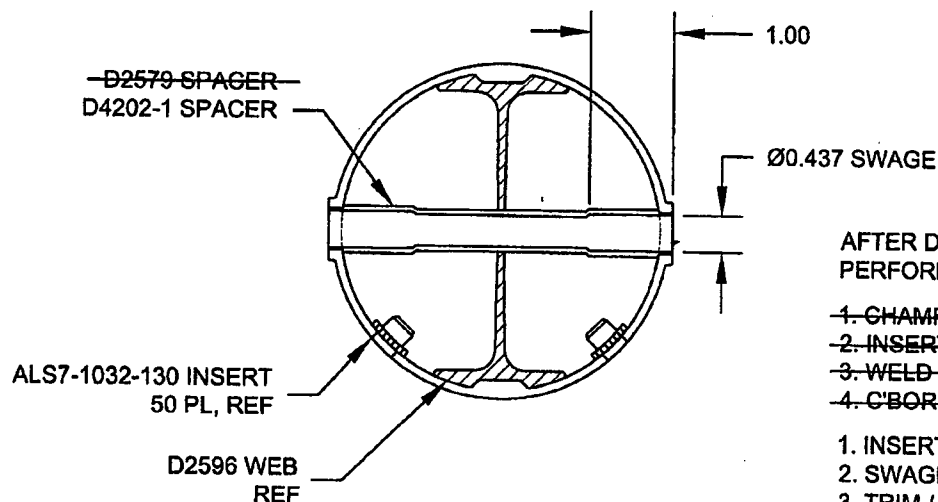
WAS

QTY	QTY	PART NUMBER	DESCRIPTION
-041	-045		
20	24	D2579	CROSS BOLT SPACER

IS

20	24	D4202-1	SPACER
----	----	---------	--------

SECTION D-D & SECTION H-H ARE AMENDED AS FOLLOWS:



SECTION D-D
NOT TO SCALE

SECTION H-H
NOT TO SCALE

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C-BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

1. INSERT D4202-1 SPACER, 20 PL (-041) OR 24 PL (-045)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries